

REMARKS/ARGUMENTS

Status:

In the Office Action dated April 1, 2008, the status was indicated as:

- 1) claims 1-130 were pending,
- 2) claims 1-39, 54-69, 73-106, 117-120, and 125-130 were withdrawn from consideration, and
- 3) claims 40-53, 70-72, 107-116 and 121-124 were rejected.

Election/Restrictions

In the Office Action, restriction to one of the inventions was required as indicated below:

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-39 and 82-106, drawn to a telephone voice response based cable television provisioning system, classified in class 725, subclass 122.
 - II. Claims 40-53, 70-72, 107-116 and 121-124, drawn to a website based cable television provisioning system, classified in class 725, subclass 110.
 - III. Claims 54-59, 73-81 and 130, drawn to a database storing cable service provider records, host type data and service location data, classified in class 707, subclass 104.1.
 - IV. Claims 60-65 and 117-120, drawn to a STB based cable television provisioning system, classified in class 725, subclass 37.
 - V. Claim 66-69 and 125-129, drawn to a retail store based cable television provisioning system, classified in class 705, subclass 1.

In response to the election requirement, Applicant elects without traverse the claims of Group II, comprising claims 40-53, 70-72, 107-116, and 121-124, which is consistent with a telephone call with the Examiner as reported in the Office Action. The non-elected claims are shown in this amendment as withdrawn.

Claim Rejections under 35 U.S.C. 112

In the Office Action, claims 52 and 121 were rejected for reciting the limitation "the enhanced services system" in lines 1 and 15, respectively based on insufficient antecedent basis. Applicant has amended claims 52 and 121 to correct this deficiency, and requests the rejection be withdrawn.

Claim Rejections under 35 U.S.C. 103

In the Office Action, Claims 40-53, 107-116 and 121-124 were rejected under 35 U.S.C. 103(a) as being unpatentable over Borelli et al. (US Patent Application Publication 2006/0020525), herein "Borelli," in view of Tamura (US Patent Application Publication 2003/0048380), herein "Tamura."

Background Discussion

Prior to addressing the claims individually, Applicant brings to the Examiner's attention related applications which are identified in the specification (page 1) in the spirit of full disclosure. Applicant has also provided, or will provide shortly, an IDS comprising prosecution related documents in addition to prior art identified in related applications for the Examiner's consideration. Some of the same or similar limitations in the present claims are found in the claims of the other applications, some of which have matured into patents.

Along this line, Applicant desires to provide background information regarding certain

aspects of the disclosure, which are elaborated in discussing the individual claims that follow. Because these aspects are repeated in the various claims, it is appropriate to address certain aspects up front, prior to dealing with the individual claims. As noted in the Summary section of the present specification, the specification discloses a capability which allows new capabilities in a host to be utilized. This is accomplished in part by a mechanism for the enhanced service system in the cable network to use new messages and parameters for controlling and configuring these new capabilities in the host. (Specification, ¶ 57.) In the prior art, devices connected to a cable network implemented a defined set of capabilities, and hence there was no need to distinguish which set of capabilities the host incorporated, or which messages were used to interact with the host. Even if the network were able to download information to a set top box to recognize new messages, it was presumed that the set top box had a certain platform that allowed it to do so. Further, the set top box would then still be viewed by the network as implementing a defined set of capabilities.

In the present disclosure, the cable network is capable of adapting to new and different capabilities in a host. Doing so involves explanation of various limitations found in the elected claims, such as: “host type,” “host identifier,” “host file,” and “host-specific configuration message.” As indicated in the specification, a “host” includes, but is not limited to, set top boxes or televisions connected to a cable system, which incorporate new capabilities relative to the existing capabilities found in existing set top boxes. (Id, at ¶ 65.)

It is possible that different brands of hosts will have different capabilities and use different messages for controlling new, enhanced services. In fact, it is expected that the

capabilities of different brands of hosts may not be exactly the same. For example, a new service may require a new capability in the host which involves configuring a personal video recorder capability ("PVR"). One host may have a maximum of 3600 minutes (or 60 hours) of recording time, while another may have 14,400 minute (240 hours) of recording time. These differences reflect different storage capabilities of different host manufactures, or could reflect different capabilities of different models from the same host manufacturer. Further, the messages used by the service provider for configuring the host may be different (both between different manufactures, and different between different models from the same manufacturer). Presently, different set top boxes are often incompatible between different cable providers.

Thus, in order to be compatible, it is necessary for the enhanced services system in the cable services provider to know what "host type" is used. Typically, the host type is identified by identifiers indicating the host manufacture and model. (Id. at 74.) This is not the same as a "host identifier," which identifies a particular device but may not necessarily identify the make and mode. (Id. at 163.) Typically, a host, such as a STB, is identified by an address, which can include a MAC level address. (Id. at 14.) Thus, a "host type" does not identify a particular host, but a "host identifier" does. However, a "host identifier" may not by itself indicate the particular "host type." However, it is presumed that every particular host device is associated with a host type (e.g., it is made by some manufacturer).

The specification indicates that different message formats may be used to configure a host, and the message formats depends on the host type. Further, the meaning of the messages themselves may be different in that the function performed may vary for different host types. In

order to facilitate the anticipated variety of message formats and meanings, the concept of a “host file(s)” is developed. Typically, a host manufacturer provides the “host file” to provide information for a particular host type which they manufacture. The host file(s) include a “host profile” file which describes the functionality and capabilities of the host. For example, it could indicate that the host has a maximum recording capability of 240 hours. Another type of host file is a “host protocol file” which provides in part the protocol messages (formats) for configuring a host. (Id. at 67.) The host file may be provided by the manufacturer of the host (hence, typically, but not always, the host type is identified by a manufacture and model identifier). Using the “host file(s)” allows the enhanced services system to properly configure the host for a given service.

To use an analogy, an automobile may have a serial number. If repairs to the engine are necessary, such as replacing a part on the engine, it is not sufficient to merely know the serial number of the car. It is necessary to know what type of engine is present (because there may be 4 or 6 cylinder engines that were available as options for that particular make and model car). Thus, merely knowing that a new piston is required is not sufficient to identify a replacement part for the automobile; the make/model of the automobile must also be known.

In the prior art, all set top boxes conformed to a single communication standard and had a common set of capabilities. The network communicated with all hosts in the same manner. In some instances, new software could be downloaded to the set top box by the network, but after doing so, all communication by the network then involved the same standard messaging. Hence, all set top boxes conformed to a single communication standard. As it can be seen, the

serial number of the set top box was not needed by the network to ascertain *how* to communicate with the set top box. At most, the serial number was required to authenticate the set top box and it would determine *whether* the network would communicate with the set top box or whether communication was authorized. (E.g., should that set top box be configured for, or be allowed to request, movies on demand?) However, when there are different protocols that can be used for communicating with different type of hosts on a cable system, knowing the host identifier by itself is not sufficient for the cable system to know how to communicate with that particular host.

Somehow, the host make/model (to borrow terminology from the prior analogy) must be ascertained. This can occur in various ways, including mapping the identifier to a make/model in a database accessible by the network, or having the host itself directly transmit its make/model information. In the former embodiment, the host identifier information could be used to identify a particular subscriber and corresponding subscriber profile. There could be information in the subscriber profile indicating the host type that the subscriber is using. Once the host type is known, the proper host files can be identified and used to determine how to communicate with that particular host. (See, e.g., Figure 12.)

Because prior art systems largely presume a common communication protocol, the prior art of record does not disclose the limitations recited in the claims such as: “host type,” “host identifier,” “host file,” and “host-specific configuration message.” Applicant notes that these terms are to be construed as set forth in the specification, and that the prior art does not disclose these limitations as properly construed.

Discussion of Specific Claims

Claims 40-50.

Claim 40 is an independent claim, with claims 41, 42, and 43-50 depending therefrom. Claim 40 has been amended so as to not separately recite “a computer.” Further, claim 43 is cancelled, as its contents has largely been incorporated into claim 40. Hence, independent claim 40 now recites the limitation “said ESS using said host identifier to ascertain a host file associated with a host type, said host type determined in part by said host identifier, the host file used to identify a host protocol file used for generating a message for provisioning a host identified by said host identifier.”

Applicant submits that these limitations are not found in the prior art, and focuses on the reasons presented in the Office Action regarding claim 43. The Office Action states:

Consider **claim 43**, Borelli combined with Tamura, as in claim 40, clearly teaches provisioning a set-top box in response to a message containing service related data and a host identifier.

Tamura further teaches selecting a host file associated with a host type. ([0027])

Therefore, at the time the invention was made, it would have been obvious to one with ordinary skill in the art to modify the system of Borelli by selecting a host file associated with a host type, as taught by Tamura, for the benefit of providing system specific provisioning of the set-top box (see [0004] Tamura).

Given the previous discussion of “host file” and related terms, it should be clear that Tamura does not disclose selecting a host file associated with a host type as alleged in paragraph 27. Specifically, note that Tamura states the following:

“At 310, once communication is established between the STB 104 and the service provider, identifying information such as serial number, device type, smart card identifier, etc. is sent from the STB to the service provider head end. *The service provider responds at 314 with system information required by the STB 104 in order properly communicate with the service provider when operational.*” [sic] (Tamura, par. 27, emphasis added.)

A careful reading indicates that “the service provider *responds* at 314 with system information *required* by the STB 104 in order [to] properly communicate with the service

provider when operational.” Thus, the service provider presumably downloads (“responds with system information”) information *to the STB* in order to allow the STB to properly communicate with the service provider. This reflects the prior art of the system downloading information (e.g., a standard message set) to be used by the STB. In other words, the service provider provides information to the STB which the STB must use to communicate properly. This is consistent with all the STB using a standard message set in order to communicate with the service provider. Tamura teaches away from the network provider obtaining information and adapting to the particular message set used by the STB. In other words, Tamura is predicated on the set top box adapting to the network service provider, not the network service provider adapting for a particular set top box.

In particular, there is no teaching of the service provider in Tamura using the identifying information from the set top box to “ascertain a host file.” Indeed, there is no such disclosure of the service provider obtaining a “host file,” or using the host file “to identify a message for provisioning a host identified by said host identifier.” As noted above, the “host file” comprises a host profile file and a host protocol file, and neither aspect is taught or suggested by Tamura.

Claims 51-53.

Claim 51 is an independent claim, with claims 52 and 53 depending therefrom. Claim 51 is amended so as to not recite a separate “computer”.

Claim 51 also recites various limitations involving “host type identifier,” such as:

- “wherein said service related input data comprises an indication of the user’s host type, the ISPG configured to generate a first provisioning message having a first format including the cable subscriber location data and said indication of the user’s host type”, and
- “selecting a cable service provider identifier compatible with said subscriber location data and said indication of the user’s host type, the serviceability database further capable of generating a second provisioning message including at

service related input data and at least one associated host type identifier.”

The above limitations recite the role of the “indication of the user’s host type” in provisioning the host. Specifically, the information of the user’s host type is indicated and used to ascertain what service provider is compatible with the user’s host type.

Borelli is acknowledged not to disclose receiving a host identifier (Office Action, page 8.) Rather, Tamura is relied upon for that teaching. Presuming for sake of argument that Tamura does disclose this limitation, Borelli does not disclose using the host type information to select a particular service provider. Because Borelli does not disclose receiving this information, Borelli does not disclose using that information to process provisioning requests. Specifically, Borelli does not select a particular service provider using the user’s host type as a basis.

As noted elsewhere, Tamura presumes the network provider will download information allowing the set top box to communicate properly with the network. Tamura does not presume that the network will adapt so as to communicate properly with the set top box. Thus, Tamura and Borelli do not disclose using the host type to ascertain whether the user can obtain a particular service from the service provider. Thus, neither reference would contemplate identifying a particular service provider that could be compatible with the host type.

Because Borelli does not disclose a service provider selected based on the user’s host type, there is no disclosure of a serviceability database “wherein each cable service provider identifier is further associated with at least one host type identifier.” Further, the Office Action is silent on this limitation, so that even if it is presumed that the Tamura is used to teach sending this information, Borelli still does not disclose using it to associated each cable service provider with at least one host type identifier.

Finally, the combination of Tamura and Borelli is deficient because Tamura is relied upon for its teaching of the set top box sending the host type information to the network. In contrast, claim 51 recites “the ISPG configured to receive from the computer both said service related input data and cable subscriber location data wherein said service related input data

comprises an indication of the user's host type." Specifically, the claim does not recite receiving the information from the set top box, but that the ISPG receives it from a computer. Thus, the combination of Tamura and Borelli does not render obvious the limitations recited in claim 51.

Claims 107- 116.

These method claims involve independent claims 107, 108, 113, and 114. Claims 109 -112 depend from claim 108, and claims 115-116 depending from claim 114. Applicant is focusing on the independent claims only for expediency.

Claim 107 has been amended to recite the limitation "an enhanced services system comprising a database storing a file maintaining an association of cable subscribers and their respective host types."

This reflects an embodiment where the enhanced services system has a database that allows determination of each cable subscriber's respective host type. This is related to the aspect of requiring information of the subscriber's host type in order to "generat[e] a host-specific configuration message based on a host protocol file wherein the host protocol file is associated with the host type."

The Office Action admits that "Borelli does not explicitly teach transmitting a host identifier to the enhanced services system." In one embodiment of the present invention, the host identifier is used to ascertain what host file, and hence which host protocol file, is used to communicate with the host. Borelli does not disclose "host files" as Applicant uses the term in the present specification. Further, if Borelli does not disclose receiving the host identifier, how can Borelli then disclose processing the host identifier to ascertain what host file (and which host protocol file) to use? The answer is that Borelli does not require the host identifier in provisioning a set top box because Borelli does not require a host protocol file to create the "host-specific configuration message." Borelli is designed to operate on present-day cable systems wherein the set top box is presumed to be compatible with the cable system.

The Office Action states that Borelli discloses a “host file” and a “host-specific configuration message based on a host protocol file” based on paragraph 70 of Borelli, shown below:

[0070] The Provisioning Manager 48 may further cooperate with the Product catalog 30 and an IP Address Rules Server 60 to determine the proper IP subnet(s) for the service(s), plan selected. If multiple subnets are determined to be available, the Network Provider's 14 allocation mechanism is responsible for handling the selection of the appropriate subnet during the DHCP lease request process. In connection with the allocation, the Provisioning Manager 48 should be directed to refer to the Product Catalog 30 for the list of discrete services that need to be configured to complete the customer's registration process. The Provisioning Manager 48 can then institute the necessary provisioning actions at a provider/device level and complete the necessary steps to provision the user within the ISP's and Network provider's networks in the manner discussed previously. For example, if providers require custom software installs, this is noted and returned to the ISP website as a complete list to be executed by the ISP's systems. The completed list of providers and all identity/download information is returned as an XML message to the ISP systems to be processed by the ISP. The ISP handles the presentation of this information.

The above paragraph does not disclose “host file(s),” nor “generating a host-specific configuration message based on a host protocol file” as recited in claim 107. In fact, the cited text states “[t]he Provision Manager 48 can then institute the necessary provisioning actions at a provider/device level and complete the necessary steps to provision the user with the ISP's and Network provider's networks in the manner discussed previously.” This does not disclose how the network provider actually provisions the user. Nor does the referenced text disclose that the network provider uses a “host protocol file” for generating a “host-specific configuration message.”

Claim 108

Claim 108 has been amended to conform more closely with terminology used in the

specification. Claim 108 recites an embodiment where the enhanced services system selects a “host file” that is “associated with both the cable service data and a host type wherein the host type is determined from the host identification data.”

Although the Office Action refers to the same reasoning for claim 107, it remains as noted above that Borelli and Tamura do not disclose using the data identifying the set top box or device type to select a particular file, much less a “host file” as developed by the invention.

It is facially deficient that the combination of Borelli and Tamura teach the limitations in 108 (as well as 107 or other claims). The Examiner states that transmitting the host identifier in Tamura meets the missing claim limitation. However, the claim requires using the host identifier to ascertain a particular host file, in order to adapt to the particular capabilities and message set of the host. There is no such disclosure in Borelli of doing this processing, hence it is no surprise that Borelli does not disclose receiving a particular host identifier. Borelli does not need a host identifier, because Borelli does not select a host file in order to ascertain how to communicate with a particular host on a cable provider’s network. In fact, Applicant’s perspective of Borelli is that it discloses a “broker” for interacting with various existing network service providers, and does not address how the provisioning must occur between the particular service provider and the device attached thereto. (See Borelli, par. 8.)

Claim 113.

The Office Action refers to the reasoning in rejection claim 107, and hence the response indicated above is incorporated by reference.

Applicant also submits that there is no disclosure indicated by the Office Action as to providing a “provisioning message including the host type data” in Borelli. Since the Examiner admits that Borelli does not disclose the “host type” (but relies, instead on Tamura), then it would follow that the provisioning process in Borelli cannot be based on a received host type, nor generating a provisioning message including the “host type data.” Applicant notes that Tamura sends the host type data to the network, and there is no disclosure pointed to in Tamura

where the host type data is sent from an ISPG to the destination, where the provisioning message include the “host type data.” Rather, the Examiner relies on Borelli for this aspect. Hence, it would appear that neither Borelli nor Tamura disclose the limitations as claimed in claim 113.

Claim 114

Claim 114 has been amended to reflect an embodiment where in addition to the subscriber’s location and desired service, the host type is used in provisioning a service.

The Office Action refers to the same reasoning in rejecting claim 107, but Applicant notes that the basis for such is inapplicable to the present claim.

First, the Office Action admits that “Borelli does not explicitly teach transmitting a host identifier to the enhanced services system.” (Office Action, page 9.) For this, Tamura is relied up. Tamura states that “once communication is established between the STB 104 and the service provider, identifying information such as serial number device type, smart card identifier, etc. is sent from the STB to the service provider head end. The service provider responds at 314 with system information required by the STB 104 in order to properly communicated with the service provider when operational.” (Tamura, par. 27.)

The present claim recites “host type,” not “host identifier.” Applicant submits that just as Borelli does not disclose a transmitting a host identifier, neither does Borelli disclose transmitting a “host type.” However, Applicant notes that Tamura discloses the STB could send “device type” information. However, it is not clear that “device type” conveys the same information as a “host type.” Even if Tamura discloses transmitting a “host type,” which Applicant does not concede it does, Borelli does not disclose processing the host type for purposes of “generating at least on provisioning message to a service provider.” In fact, there is no processing at all identified in the Office Action where Borelli processes action different based on “host type”, because Borelli does not disclose using “host type” at all.

In summary, just because Tamura may disclose sending “host type” information, there is

no disclosure in Borelli that the host type is used in “generating a message to a serviceability database including the cable subscriber location data and the host type.” Nor is there any disclosure in Borelli that the host type is used in generating a provisioning message “wherein the at least one provisioning message includes the cable subscriber identification data, the host type, and service offering identifier.” In fact, Borelli appears to operate with present data cable systems where the set top boxes are all presumed to be compatible with the cable network, and there is no reason why the type of set top box is relevant in the provisioning process.

Claims 121-124

Claim 121 is an independent claim, with claims 122-124 depending therefrom.

Claim 121 recites as its first step: “receiving at a provisioning input system a *host type*....” The indication of the host type is necessary for the performing the subsequent step of “selecting at the enhanced services system a host protocol file based on the service offering and the host type.” Applicant submits that neither Borelli nor Tamura disclose “a host type” which is used to select a “host protocol file.” In fact Tamura is relied upon for sending a “host type” and this is combined with Borelli, because, as the Examiner admits, Borelli does not disclose a “host type.” If Borelli does not disclose a “host type”, how can Borelli disclose *using the received host type* to select a host protocol file?

In fact, the Office Action refers to the same reasoning for claim 40, but claim 40 as examined did not recite a “host protocol file.” Thus, there is no reasoned basis for using the Office Action’s response for claim 40 to demonstrate how Borelli disclosed use of a “protocol file.”

Further, claim 121 also recites other aspects which are not disclosed in Borelli, specifically:

- 1) “determining a cable network provider for the user based on the location data and the host type,” and
- 2) “determining a service offering associated with the cable network provider

wherein the service offering is further associated with the host type.”

Borelli does not disclose determining a cable network provider or a service offering based on the host type. Borelli does disclose using the user’s street address to determine if access to a network provider is possible (see, e.g., par. 37-47). Borelli also discloses that if “the potential customer is qualified for one or more types of access to the Network, a query (300) is made to the Product Catalog Server 30 to retrieve (400) a list of offerings available, if any at the specified location for the class of customer.” (Borelli, par. 48.) However, Borelli does not disclose that the *host type* is used to determine a cable network provider, or that the host type is further associated with the service offering. In summary, Borelli uses the subscriber’s location to ascertain what type of access is possible, and then based on that access, what services are possible.

As the Examiner admits elsewhere in the Office Action, Borelli does not disclose a “host type.” If Borelli does not disclose a “host type,” then how can Borelli disclose *using the host type* to determine a cable network provider based on the host type? Further, if Borelli does not disclose a host type, then how can Borelli disclose determining a service offering that is “associated with the host type”? Tamura cannot be relied on this, since Tamura does not disclose, and is not relied upon, for the network processing of the information received from the terminal. Applicant notes that it is expected that Borelli would not disclose using the host type in such a way, because Borelli operates in the same way as prior art systems wherein the user’s equipment is not determinative of the service or service provider.

CONCLUSION

Applicant submits that the independent claims recite various limitations that are not found in Borelli, nor in Tamura. Consequently, Applicant submits the elected independent claims are now in a condition for allowance, and that rejections be withdrawn. Further, because the dependent claims depend from patentably distinct claims, the dependent claims are now in a condition for allowance as well.

Appl. No.: 10/712,832
Amdt. dated June 30, 2008
Reply to Office Action of April 1, 2008

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

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